

2. RESPONSE/REMARKS

2.1 STATUS OF THE CLAIMS

Claims 1-34 were pending at the time of the Action, and examined on the merits.

Claims 1-4, 6, 17, 21-26, 28, 29, and 31-34 have been amended herein.

Claim 27 has been canceled herein.

Claims 35-57 have been added herein.

Claims 1-26 and 28-57 are now pending in the application.

2.2 SUPPORT FOR THE CLAIMS

Complete support for the language of all pending claims can be found throughout the Specification and claims as originally filed.

Support for new claim 35 is found throughout the specification and originally filed claims and drawings, and at least in paragraph 20; support for new claim 36 is found at least in paragraph 88; support for new claims 37-40 and 42-45 is found in the table of paragraph 75; support for claims 41 and 46-51 are found at least in paragraphs 38-40 and 88-91. Support for claims 52, 53, 56 and 57 are found in the original claims as filed and at least in the Examples, and on page 24. Paragraph 31 gives support for new claim 54; while paragraphs 24 and 25 support the addition of claim 55.

Applicant believes therefore that no new matter is incorporated as a result of the accompanying amendment. The Office is also hereby authorized to deduct any fees due for entry of the new claims or for any other reason from the deposit account indicated above.

2.3 NOMENCLATURE.

The Action at page 2 objects to the specification allegedly because of the apparent confusion of different chemical species names in the Specification.

To answer the Examiner's question concerning chemical nomenclature, Applicant believes that it is well within the knowledge of the skilled artisan in the chemical arts field that "indanes" and "hydrindanes" are indeed different classes of chemical compounds. In their simplest concept, the two classes of compounds differ in one respect to their degree of hydrogenation of the carbon ring structures comprising them.

Applicant further notes that the skilled artisan also would understand that 1-phenyl-1,3,3-trimethylindane is a non fully-hydrogenated cyclic compound (which the Examiner correctly notes is an intermediary compound obtainable from α -alkyl styrene in the disclosed methods of the invention), while 1-cyclohexyl-1,3,3-trimethylhydrindane is a fully-hydrogenated cyclic compound, and are thus different chemical species.

Applicant believes the skilled artisan would readily understand that a "phenyl" group is an aromatic (or non-fully reduced) ring structure, while a "cyclohexyl" group is a non-aromatic, or fully-hydrogenated cyclic structure.

If, however, the Examiner still believes such information may not be of knowledge to the skilled artisan, Applicant would be agreeable to amending the Specification prior to allowance of the claims to show chemical "drawings" illustrating the exemplary formulae.

Applicant concurs with the office that various trademark terms have been used throughout the specification, and Applicant also believes that the compounds so identified are well-known to the skilled artisan. However, Applicant notes that the Examiner would be amenable to amendment of the specification to further provide exemplary generic terminology to further identify the

trademark species. If the Office so wishes, Applicant would be amenable to producing either a standard set of amended paragraphs, or if it is more appropriate, the submission of a complete substitute specification if such act would better assist the Office in facilitation of the proper typesetting of the application when allowed.

Applicant seeks the Examiner's preference in this regard, and asks to respectfully defer these two issues until an interview is conducted with the Examiner to discuss the most appropriate means for providing greater clarity of trademarked products throughout the text of the specification. Applicant appreciates the Examiner's interest in providing the greatest degree of clarity as possible and Applicant respects the proprietary nature of such marks.

2.4 THE OBJECTION TO CLAIM 6 IS OVERCOME.

The Action at page 4 objects to claim 6 for a minor typographical error.

Applicant appreciates the Examiner's observation of this typographical error, and has corrected the misspelling of the word "from" as requested. Applicant respectfully requests that the objection now be withdrawn.

2.5 THE OBJECTION TO CLAIMS 26 AND 27 IS OVERCOME.

The Action at page 5 notes the potential for a double patenting objection in view of the language of claims 22, 26, and 27.

Applicant appreciates the Examiner's observation of this clerical oversight, and has deleted claim 27 and modified the language of dependency of claims 22 and 26 to further address the Examiner's concern of potentially duplicative claim scope. Applicant respectfully requests that this potential objection now be considered moot.

2.6 THE REJECTION OF CLAIMS UNDER 35 U. S. C. §§ 112 ARE OVERCOME.

The Action at page 5 rejects claims 21-34 under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In this rejection, the Office has objected to the clarity of claims 21 and 25. With respect to claim 25, Applicant has amended the typographical error to address the issue raised by the Examiner.

With respect to claim 21, Applicant respectfully traverses the Action's conclusion that paragraph 10 of the specification clearly indicates that "'and a free acid" is the object of "in the absence of" rather than "is contacted with" and therefore the claim is indefinite.

Applicant notes that the claim in question is directed to a particularly surprising and unexpected embodiment of the invention-- a method in which a fully-hydrogenated cyclic dimer of an α -alkyl styrene may be produced from contacting an α -alkyl styrene with a supported acid catalyst (a) in the absence of a solvent, and (b) substantially in the absence of free (*i.e.*, unsupported) acid. In fact, as the Specification clearly indicates in paragraph 20, not only is the

inventive method capable of producing the cyclized dimer substantially in the absence of free acid, but under certain conditions “the dimerization reaction is *completely* free of free acid.” (Para. 20, Emphasis added).

In an effort to more clearly delineate these features of the claimed method, and to more particularly identify that which the Applicant considers to be one of the inventions disclosed and claimed in the present Specification, Applicant has improved the clarity of the language of claim 21 in the accompanying amendment. Applicant believes that this modification of the language clearly addresses the Examiner’s concern and respectfully requests that these rejections now be withdrawn.

2.7 THE REJECTIONS OF CLAIMS UNDER 35 U. S. C. §§ 102(B)/103(A) OVER THE PATENTS TO DULING *ET AL.* ARE OVERCOME.

The Action at pages 6 to 8 rejects the pending claims allegedly as being anticipated under § 102(b) by either U.S. Patent 3,843,537 or US Patent 3,597,358 both to Duling et al., (hereinafter “the ‘537 patent” and the ‘358 patent,” respectively), or in the alternative, legally obvious under § 103(a) over the ‘358 patent.

In these rejections, Applicant respectfully traverses.

For either of the two cited references to anticipate the claims, each and every element of the rejected claims must be found in the reference. Applicant respectfully asserts that neither the ‘537 or the ‘358 patent reference teaches or suggests a method of making a substantially fully-hydrogenated cyclic dimerized α -alkyl styrene by a method in which the α -alkyl styrene is contacted with a supported acid catalyst in the absence of a solvent and substantially in the absence of free acid under a temperature and pressure condition to effect oligomerization of the

α -alkyl styrene to produce an oligomerization product that comprises substantially a fully hydrogenated cyclic α -alkyl styrene dimer. These two 1970's era references also do not teach or suggest a continuously variable transmission fluid that comprises a fully-hydrogenated cyclic α -alkyl styrene dimer that is prepared substantially by such a method as claimed herein. Therefore, the rejection of the original composition (1-20) and method (21-34) claims cannot be anticipated by either of these two patents. Applicant also believes that the two cited patent references also neither anticipate or render legally obvious the additional new claims, claims 35-57.

Since these references do not anticipate each and every element of the claimed invention, Applicant respectfully requests that the anticipation rejection be withdrawn.

Also, considering that both the cited references are more than 30 years old, Applicant also disagrees with the conclusion of the Office on page 7 of the Action that even if the cited references are not anticipatory, they nevertheless would have been sufficient either alone or in combination to motivate one of skill in the art to achieve the presently-claimed method. If such references were so convincingly apparent in their "powers of suggestion", Applicant asserts that it would not have taken the art more than three decades to develop the novel and non-obvious methods and compositions disclosed and claimed in the present invention..

Applicant respectfully requests the Examiner's concurrence with this position and removal of these rejections.

2.8 THE REJECTION UNDER 35 U. S. C. §§ 103(A) OVER HATA ET AL. ARE OVERCOME.

The Action at page 8 rejects claims 1-34 allegedly as being legally obvious in view of Hata et al. (EP281060A2).

In this rejection, Applicant also respectfully traverses.

A finding of obviousness under 35 U. S. C. § 103 requires a determination of the scope and content of the prior art, the level of ordinary skill in the art, the differences between the

claimed subject matter and the prior art, and whether the differences are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. John Deere Co.*, 148 USPQ 459 (U.S. S.Ct. 1966).

The relevant inquiry is whether the prior art suggests the invention and whether the prior art would have provided one of ordinary skill in the art with a reasonable expectation of success. *In re O'Farrell*, 7 USPQ 2d 1673 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success *must be founded in the prior art* and not in the Applicant's disclosure (emphasis added) *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991).

Thus, for the cited combination of references to render the present claims legally obvious under 35 U.S.C. § 103, the references must suggest the particular claimed methods and compositions. Moreover, the reference must provide one of ordinary skill in the art with a reasonable expectation of obtaining the claimed invention.

A cited reference cannot legally obviate the claimed invention when the references fail to provide the required suggestion or reasonable expectation of success of generating the claimed methods and compositions.

The Action at page 8 refers to page of the reference which is said to disclose “1,1,3-trimethyl-3-cyclohexylhydrindane” as an exemplary base oil component of traction drive mixtures, which, according to page 2 lines 35-40 of the cited reference these lubricating oils “consist(s) essentially of: (a) a base oil containing as the main component a saturated hydrocarbon or hydrocarbons having fused ring and/or nonfused ring; (b) an ethylene-olefin copolymer having a number -average molecular weight of 800 to 8000; and (c) an anti-wear agent.”

Applicant respectfully asserts, however, that the reference fails to legally obviate the claimed invention, namely, a method of making a substantially fully-hydrogenated cyclic dimerized α -alkyl styrene by a method in which the α -alkyl styrene is contacted with a supported acid catalyst in the absence of a solvent and substantially in the absence of free acid under a temperature and pressure condition to effect oligomerization of the α -alkyl styrene to produce an oligomerization product that comprises substantially a fully hydrogenated cyclic α -alkyl styrene dimer. The Hata et al. reference also does not suggest a continuously variable transmission fluid that comprises a fully-hydrogenated cyclic α -alkyl styrene dimer that is prepared substantially by the methods as claimed in the present application. Therefore, the rejection of original claims 1-34 cannot be legally rendered obvious by the Hata disclosure.

Furthermore, because the claims in the case particularly point out the distinct features of the inventive methods disclosed in the Specification, and because each of such claims is clearly distinguished over the cited reference by Hata Applicant further believes that, as a matter of law, the rejection advanced under 35 U. S. C. § 103 cannot stand.

Applicant urges the application of the standard held in the case of *In re Vaeck*, 20 U.S.P.Q. 1438 (Fed. Cir. 1991), in which the Federal Circuit stated that in order for an examiner to make out a *prima facie* case of obviousness two things must be shown:

- (1) That the prior art would have suggested to those of ordinary skill in the art that they should make the claimed invention; and
- (2) That the prior art must demonstrate a reasonable expectation of success of the invention.

Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the Applicant's disclosure (emphasis added).

Furthermore, in the case of *In re* Dow Chemical Co. (837 F. 2d 469, 5, U.S.P.Q.2d 1529, Fed. Cir. 1988) the court held that an “obvious-to-experiment” standard is not an acceptable alternative for obviousness, and that there must be a reason or suggestion in the art, *other than* the knowledge learned from the Applicant’s disclosure.

In the instant case, the Examiner correctly notes that the ‘Hata reference does not disclose or suggest the claimed steps of the method of synthesis. Therefore, if there is neither the suggestion nor the reasonable expectation of success, then it is improper to rely upon the reference as legally obviating the claimed method and products-by-process synthesized therefrom.

Applicant respectfully requests the Examiner’s concurrence with this position and removal of this rejection.

2.9 REQUEST FOR EXAMINER INTERVIEW

Pursuant to M. P. E. P. § 713.01 and 37 C. F. R. §1.133, owing to a change in primary counsel for the present application, a telephone call to the new undersigned Applicant’s representative is earnestly solicited within 30 days’ receipt and consideration of the present paper for the purpose of scheduling an Examiner Interview prior to the issuance of a further Action on the merits to discuss the claims as are now in condition for allowance, and to address any particular remaining issues in the mind of Examiner Thexton once he has had the opportunity to review this response and consider the claims presented in the accompanying amendment.

2.10 CONCLUSION

It is respectfully submitted that the pending claims are now fully acceptable under all sections of the Statutes and are now in conditions for ready allowance, and that all of the previous concerns of the Examiner in the pending application have now been satisfactorily resolved. Applicant further respectfully requests, therefore, the withdrawal of all rejections and that a Notice of Allowance be issued in the case with all due speed. Applicant also notes for the record his explicit right to re-file claims to one or more aspects of the invention as originally claimed in one or more continuing application(s) retaining the priority claim from the present and parent cases.

Should the Examiner have any questions, a telephone call to the undersigned Applicant's new representative would be appreciated.

Respectfully submitted,

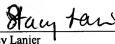
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